



Dulwich Prep London,
38-42 Alleyn Park,
London,
SE21 7AA

13 November 2021

Dear Mr Johnson,

The UK's current energy mix is not sustainable. The UK must quicken the transition to more sustainable energy sources.

Almost 80% of energy produced in Britain is made using non-renewable fuels, that is, coal, oil, and natural gas. Most of this is used for heating, producing electricity, and transportation. This leads to the UK producing around 362.3 million tonnes of carbon dioxide per year from our energy consumption. Although only 39% of our electricity is produced by non-renewables, much of our transportation is powered by oil. If we keep using oil, natural gas, and coal at this rate, we will run out of them in 50, 52, and 114 years, respectively. Moreover, we are slowly but surely increasing the global temperature, which is creating more unpredictable and dangerous weather. Going renewable means almost all of our energy can be produced right here, in the UK. I know we are aiming to be net zero by 2050. I truly hope that these are not just words, but that these promises will lead to real, physical, action.

The UK is still far too reliant on fossil fuels. They are cheap, relatively easy to transport, and can be used anywhere, but that is no excuse for their lethal by-products. Coal, oil, and gas all produce greenhouse gases, specifically carbon dioxide, sulphur dioxide, and nitrogen dioxide, which all trap thermal energy from the Sun and heat the Earth. The increasing amount of greenhouse gases is what is leading to an increase in global temperatures, and in due course, rising sea levels and unpredictable weather. Overall, this means if we continue polluting at this rate, our Earth will soon reach an irreparable state. Therefore, we must act now by switching to renewable energy sources.

As you know, there are other potential options for the UK. Nuclear energy produces virtually no pollutants, doesn't need to rely on its environment and is also very safe. However, it is not technically renewable and it also produces small amounts of toxic nuclear waste, which doesn't decay for thousands of years. Furthermore, when things do go wrong, nuclear accidents are violent, dangerous, and have long-lasting consequences. Wind is a major contributor to renewable energy sources in the UK, as we have a strong south-westerly prevailing wind, making wind power very efficient. A notable wind plant is the London Array, which is located 20 miles offshore, north-east of the Thames Estuary. It produces enough clean power for 500,000 homes (630MW). Hornsea One is the largest of all the offshore plants, generating power for well over 1,000,000 homes (1,200MW). Although they spoil landscapes and can be noisy, there is definitely a future for offshore wind power in the UK. Solar power in the UK is limited as there are not too many sunny days in Britain! The largest solar array is Shotwick

Solar Park, which generates 72.2MW (16 times less than Hornsea One); only enough to power about 70,000 homes. They also take up lots of room and can look unappealing. Overall, solar may be good in barren, hot landscapes, but there's not much of that in the UK.

So in summary, right now Britain uses renewables for only 20% of its total energy needs. This percentage will need to increase if we have any chance of becoming carbon neutral by 2050. I believe that nuclear power could be a real workhorse for the UK, and it is a tried and tested method, with Sizewell B producing almost 1,200MW of power per year since 1995. However, our future is likely to be dependent on wind sources, as we already have steady, strong winds that are easily captured from offshore plants. If we can achieve this transition, then we will have little to no problems with energy security, as almost all of our power will be produced in the UK. We might even produce so much energy, we have some left over to export!

I believe Britain should not just follow other countries in the matter of climate change, we should lead. We have the tools to go net zero, we just need to start building.

Yours sincerely,

Thomas C

Aged 11